



THE UNIVERSITY
of EDINBURGH

Postgraduate Opportunities

2021

Physics & Astronomy



THE UNIVERSITY
of EDINBURGH

Top 50[†]

We're consistently ranked one of the top 50 universities in the world. We're 20th in the 2021 QS World University Rankings.

19TH

We're ranked 19th in the world's most international universities‡. Since 2010, we have taught students from 160 countries.

4TH

We're ranked fourth in the UK for research power, based on the 2014 Research Excellence Framework.†

Top 100

We're ranked in the top 10 in the UK and in the top 100 in the world for the employability of our graduates.§

7TH

Edinburgh is ranked the seventh best student city in Europe and 15th in the world.*

19

There are 19 Nobel Prize winners who are alumni of the University or who have been members of academic staff here.

Online leader

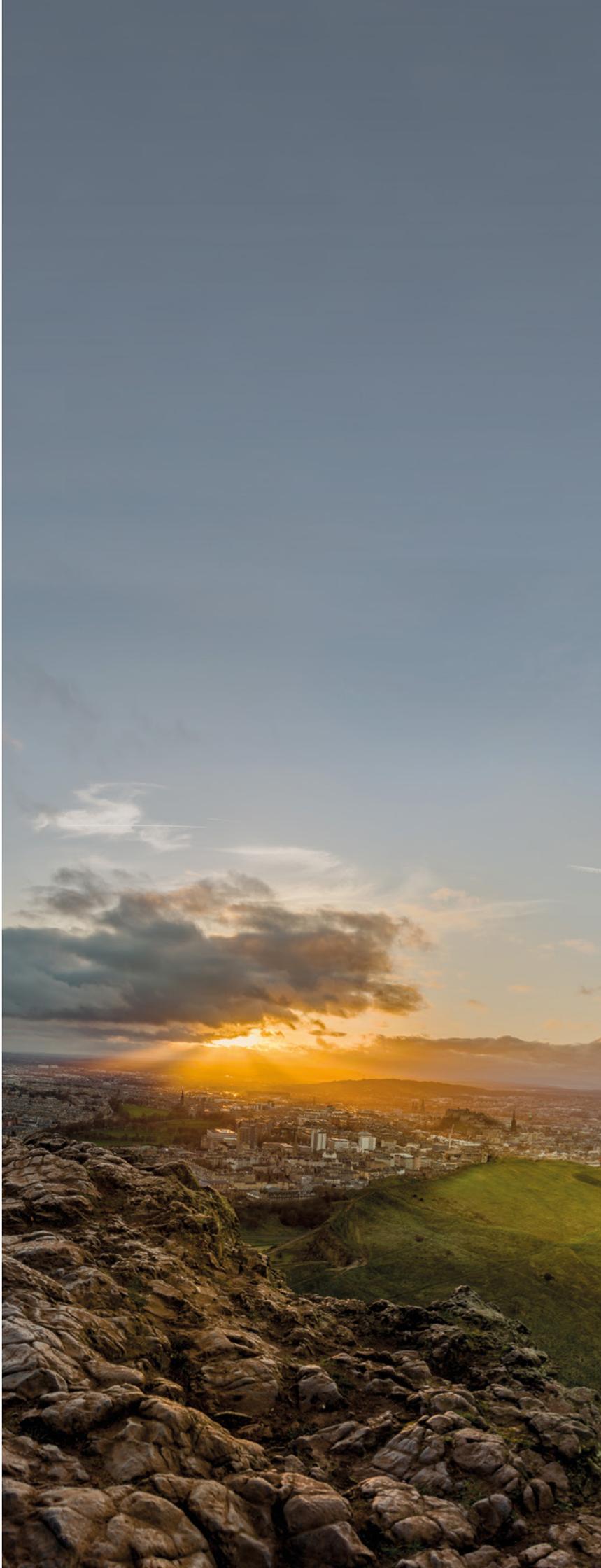
Edinburgh is one of the largest providers of online postgraduate programmes in the UK.

‡ *Times Higher Education*, The World's Most International Universities 2020

† *Times Higher Education*, Overall Ranking of Institutions

§ *Times Higher Education*, Global Employability University Ranking 2019

* QS Best Student Cities 2019



Open to the world

We're open to the world today so we can influence the world tomorrow. The University brings people with new ideas and perspectives together in a spirit of interdisciplinary innovation and collaboration. This has already shaped the world in so many ways, from the great thinkers of the Scottish Enlightenment, to the discovery of the Higgs boson particle and the development of a genetically engineered vaccine for Hepatitis B. Our 21 Schools, across three academic Colleges, embody our approach.





About the School of Physics & Astronomy

As the birthplace of the Higgs mechanism and the prediction of the Higgs boson, the University of Edinburgh's School of Physics & Astronomy has a strong track record of innovation and research excellence.

Our research – 96 per cent of which was rated 4* world leading or 3* internationally excellent on the overall quality profile of the Research Excellence Framework (REF) 2014 – pushes the frontiers of scientific thinking.

From the smallest to largest scales, the School's pioneering work regularly attracts global attention. Not only have we played a vital role in the world's largest scientific experiment – to find the Higgs boson – but we have also carried out the biggest exercise yet to map dark matter, spanning billions of light years across the universe.

New discoveries, and more to come

The discovery of the Higgs boson at CERN prompted the creation of a new centre at the School – where Peter Higgs remains an Emeritus Professor – to support research in theoretical physics. The Higgs Centre for Theoretical Physics brings together scientists from around the world to seek deeper understanding of the workings of the universe and its contents, through its extensive visitor and workshop programmes.

Our researchers work in three institutes:

The Institute for Astronomy

The Institute for Astronomy is one of the UK's major centres of astronomical research, with particular strengths in survey astronomy, cosmology, active galaxies and the formation of stars and planets.

The Institute for Condensed Matter and Complex Systems

At the Institute for Condensed Matter and Complex Systems we explore everything from the motion of microorganisms to the behaviour of matter under the extreme pressures found at the centres of stars.

The Institute for Particle and Nuclear Physics

The work of the Institute for Particle and Nuclear Physics includes the giant experiments of the Large Hadron Collider at CERN, Switzerland, which are revealing the secrets of the building blocks of the universe.

The Institute of Physics awarded us Juno Champion status for our work to promote gender equality.

Our community

As you would expect from one of the largest physics research centres in the UK, our academic community spans a broad range of subject areas.

Our staff includes a number of Fellows of both the Royal Society and the Royal Society of Edinburgh, and you'll have access to experts from other institutions through our membership of the Scottish Universities Physics Alliance (SUPA).

This means you'll be undertaking your research in an environment that encourages discovery through collaboration. You'll be part of a vibrant and motivated group of researchers, and will be able to participate in events aimed at developing strong collaborative links.

Social networking

You'll have plenty of opportunities to leave your office or lab to enjoy the company of your peers from across the University. Edinburgh University Students' Association has a host of societies, sporting activities and social events waiting for you. It is one of the oldest students' associations in the UK and is an excellent way of getting to know other students.

SUPA connections

Our membership of SUPA – the Scottish Universities Physics Alliance – helps ensure exposure to as broad a range of thinking as possible. SUPA features courses, guest lecturers and online events aimed at bringing together the expertise of Scotland's physicists and astronomers. You'll have the opportunity to connect with your peers from other Scottish universities and establish your place within the wider scientific community.



Employability and graduate attributes

As well as the specific skills you will gain throughout your studies, you will also develop techniques and abilities that will give you a head start in any career. We offer outstanding services to enhance your employability and make the most of your time here.

Institute for Academic Development

All postgraduate students can benefit from our Institute for Academic Development (IAD), which provides information, events and courses to develop the skills you will need throughout your studies and in the future. IAD events also offer the perfect opportunity to meet and network with other postgraduates from across the University.

Further information is available online:
www.ed.ac.uk/iad/postgraduates

For taught postgraduates, the IAD provides a popular study-related and transferable skills support programme. It is designed to help you settle into postgraduate life, succeed during your studies and move confidently to the next stage of your career. It offers on-campus and online workshops and one-to-one study skills consultations, as well as online advice and learning resources in the Study Hub (www.ed.ac.uk/iad/studyhub). The programme and learning resources cover key study skills tailored to different academic stages, including prearrival sessions; getting started with your studies; critical reading, writing and thinking; managing your exams; and planning for and writing up your dissertation.

IAD also provides a comprehensive programme of transferable-skills training, resources and support for researchers completing a doctorate. The programme consists of workshops that are designed to help you successfully prepare for the various milestones of your PhD, from getting started with your research, to writing up and preparing for the viva, as well as developing personal and professional skills that can be transferred to your future employment. Workshops cover topics such as writing skills, reference management tools, statistics, preparing for conferences, delivering presentations, time and project management, and personal development. IAD also offers online resources and planning tools to help get your research started, as well as support for tutoring and demonstrating, and public engagement and communication.

Careers Service

Our Careers Service plays an essential part in your wider student experience at the University, offering a range of tailored careers and personal development guidance and support. We support you to recognise the wealth of possibilities ahead, while at university and after graduation, helping you explore new avenues, tap into your talents and build your employability with confidence and enthusiasm.

From exploring career options to making decisions, from CV writing to interview practice, from Employ.ed internships to graduate posts and from careers fairs to postgraduate alumni events, we will help you prepare for the future.

We sustain and continually develop links with employers from all industries and employment sectors, from the world's top recruiters to small enterprises based here in Edinburgh. Our employer team provides a programme of opportunities for you to meet employers on campus and virtually, and advertises a wide range of part-time and graduate jobs.

More information:
www.ed.ac.uk/careers/postgrad

Platform One

We provide opportunities for students to draw on the knowledge and experience of our worldwide alumni network through lectures, workshops and panel discussions, and online via Platform One. This supportive environment allows students, alumni, staff and volunteers to gather to share their knowledge and experiences and discuss ideas, plans and possibilities.

More information:
www.ed.ac.uk/platform-one

Open to new ideas

If you consider yourself something of an entrepreneur, you'll be interested to know that Edinburgh is an entrepreneurial city, home to two of the UK's \$1 billion-valued unicorn companies. We boast one of the most entrepreneurial student bodies in the UK and have helped students launch nearly 100 startups in the last two years. One in five of those startups was a social enterprise. Edinburgh Innovations, the University's commercialisation service, offers free support to student entrepreneurs including one-to-one business advice and a range of workshops, bootcamps, competitions and networking events. Successful recent clients include Orfeas Boteas, creator of the Dehumaniser sound effects software used by Hollywood movies and blockbuster video games; Douglas Martin, whose company MiAlgae aims to revolutionise the global aquaculture and pet food industries; and Aayush Goyal and Karis Gill, whose gift box enterprise Social Stories Club brings ethical products to a wider market: www.ed.ac.uk/edinburgh-innovations/for-students

Equality recognition

The School has been awarded Athena SWAN Silver status and Juno Champion status in recognition of our ongoing commitment to advancing women's careers in education and research.

More information:
www.ecu.ac.uk/athena-swan
www.iop.org/juno

Open to the world

The University of Edinburgh has been influencing the world since 1583. Our Schools have a long history of making a difference but it isn't one we take for granted. To this day, we strive to deliver excellence and help address tomorrow's greatest challenges.

Here's a snapshot of what your School's community has been up to recently.

Speeding up identification of viruses and bacteria

The Coronavirus pandemic highlighted the need for fast, reliable disease detection and Professor Rosalind Allen's research is suggesting a new way to achieve this.

The Professor of Biological Physics worked with a multinational team of researchers in Cambridge, China, London and Slovenia, using computer simulations to show molecular probes that bind weakly to disease DNA may be more effective than standard detection methods.

Both viral and bacterial infections are currently detected by screening for disease DNA in patient samples – a challenging proposition because the amount of detectable disease DNA is so small. Scientists typically conduct this screening using molecular probes designed to bind strongly to disease DNA but not to non-disease DNA.

However, Professor Allen's study, which will be published in the USA in the Proceedings of the National Academy of Sciences, reveals the potential of probes designed to bind weakly all over the target DNA.

Further experiments will be required to test how well this works in practice but it is promising work, with particular potential for countries with weak health infrastructure.





Edinburgh CERN team make subatomic particle discoveries

Particle physicists from the School of Physics & Astronomy have discovered three new excited states of the Ξ_c^0 baryon, a type of subatomic particle.

The team has been working on the Large Hadron Collider beauty (LHCb) particle detector at CERN – the European Organization for Nuclear Research. The LHCb experiment investigates the differences between matter and antimatter by studying a type of particle called a beauty quark or b-quark.

The Ξ_c^0 state is a baryon composed of three different types of quarks. Like electrons in atoms, the quarks can be rearranged into excited states with different values of angular momentum and quark spin orientation. Three new excited states of the Ξ_c^0 baryon, named $\Xi_c(2923)^0$, $\Xi_c(2939)^0$ and $\Xi_c(2965)^0$, have been observed.

“This discovery probes the internal structure of the baryons and helps us to understand how quarks bind together inside the hadrons.”

Dr Marco Pappagallo
LHCb research assistant, Particle Physics Experiment Research Group

Possible light flare from black hole merger detected

An international team of scientists, including physicists from the School of Physics & Astronomy, has seen what could be the first ever light flare from a black hole merger.

The flash of light, pinpointed to the same area of space as gravitational waves resulting from a black hole merger, is significant and may herald a new chapter in astrophysics. It was previously believed that the gravity associated with a black hole was so strong that nothing – not even light – could escape it.

Supermassive black holes lurk at the centre of most galaxies, including our own Milky Way. They can be surrounded by a disc of flowing gas, containing swarms of stars and smaller black holes. In close proximity, two black holes will spiral around each other before they ultimately collide and merge, generating ripples in space and time known as gravitational waves.

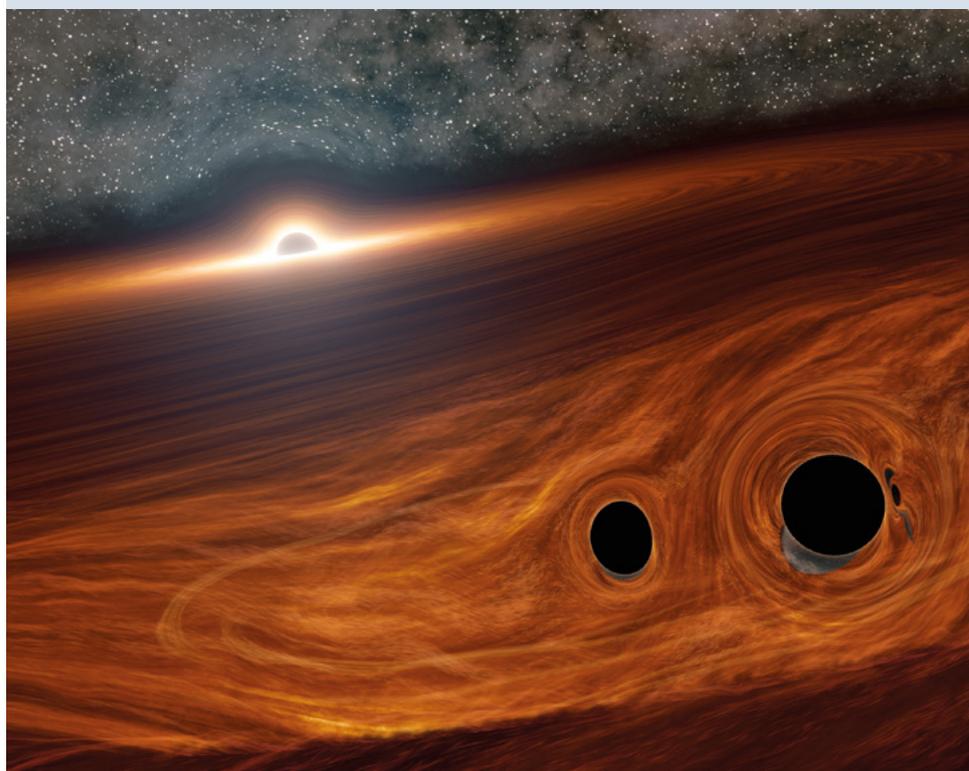
The latest study, published in *Physical Review Letters*, looks at a black hole merger spotted by the National Science Foundation’s Laser Interferometer Gravitational-wave Observatory (LIGO) and the European Virgo detector in May 2019. Shortly after the collision an unexpected flare of light was detected by the Palomar Observatory, San Diego, and pinpointed to the same area of space.

Experts believe the merger created ‘a kick’ – a reaction of the gas to the new black hole – which generated a bright light flare.

“This result, the optical flash resulting from two black holes colliding and crushing the gas around them, is so exciting. As a wee kid, I was hooked by the idea of black holes and now, as a big kid, the fact that we have ‘seen’ as well as ‘heard’ these black hole mergers, is an amazing discovery that has deep implications for astrophysics.”

Dr Nicholas Ross

Project collaborator and STFC Ernest Rutherford Fellow at the Institute for Astronomy



Building the world's most advanced neutrino observatory

The School of Physics & Astronomy is to construct the computing and software infrastructure of a flagship global science project, following a £650,000 award from the UK Research and Innovations' Science and Technology Facilities Council.

Physicists and software engineers will work on a complex, globally-distributed data management system to catalogue and deliver multi-petabyte datasets generated by the Deep Underground Neutrino Experiment (DUNE).

The world's most advanced neutrino observatory, DUNE is bringing together more than 1,000 physicists in 31 countries across Asia, Europe and the Americas. It will study the behaviour of neutrinos, fired 1,300km through the earth at a liquid argon detector, and their antimatter counterparts, antineutrinos, as well as watch for neutrinos from supernovae and investigate whether protons decay.

"It is particularly exciting to know that we will become part of an experiment that may discover matter antimatter asymmetry in neutrino interactions, as well as become part of the global supernova-watching community."

Professor Peter Clarke
DUNE lead, School of Physics & Astronomy

Future leaders in physics and astronomy

Dr James Aird and Dr Maxwell T. Hansen have been awarded Future Leaders Fellowships by UK Research and Innovation (UKRI).

The UKRI fellowships are intended to secure a strong supply of talented individuals needed for a vibrant research and innovation environment in the UK. Each awards £400,000 to £1.5 million in funding, initially over four years, to support novel projects, equipment and personal development.

Dr Aird will join the Institute for Astronomy, using his fellowship to probe the lifecycles of supermassive black holes over timescales from millions to billions of years. He intends to determine their impact on the growth and evolution of the galaxies they lie in, developing new statistical tools that combine data from a range of large astronomical surveys spanning X-ray, optical and radio wavelengths.

Dr Hansen will join the Institute for Particle & Nuclear Physics. A theorist seeking evidence for phenomena that go beyond the Standard Model of physics, he is focused on understanding the role of the strong force in uncovering new physics signatures. He will combine cutting-edge high-performance computing with an advanced theoretical framework to inform experiments challenging the Standard Model.



New array to shed light on dark energy

Scientists from the Institute of Astronomy are taking part in the most detailed survey of the Universe ever undertaken.

For more than a decade, they have contributed to an international project to design and build the Dark Energy Spectroscopic Instrument (DESI) on top of the Mayall Telescope in Arizona.

DESI is an array of 5,000 robotic fibre-optic eyes that swivel in a choreographed dance, each focusing on a distant galaxy. In perfect sky conditions they will enable the instrument to measure the light of 5,000 galaxies in around 20 minutes.

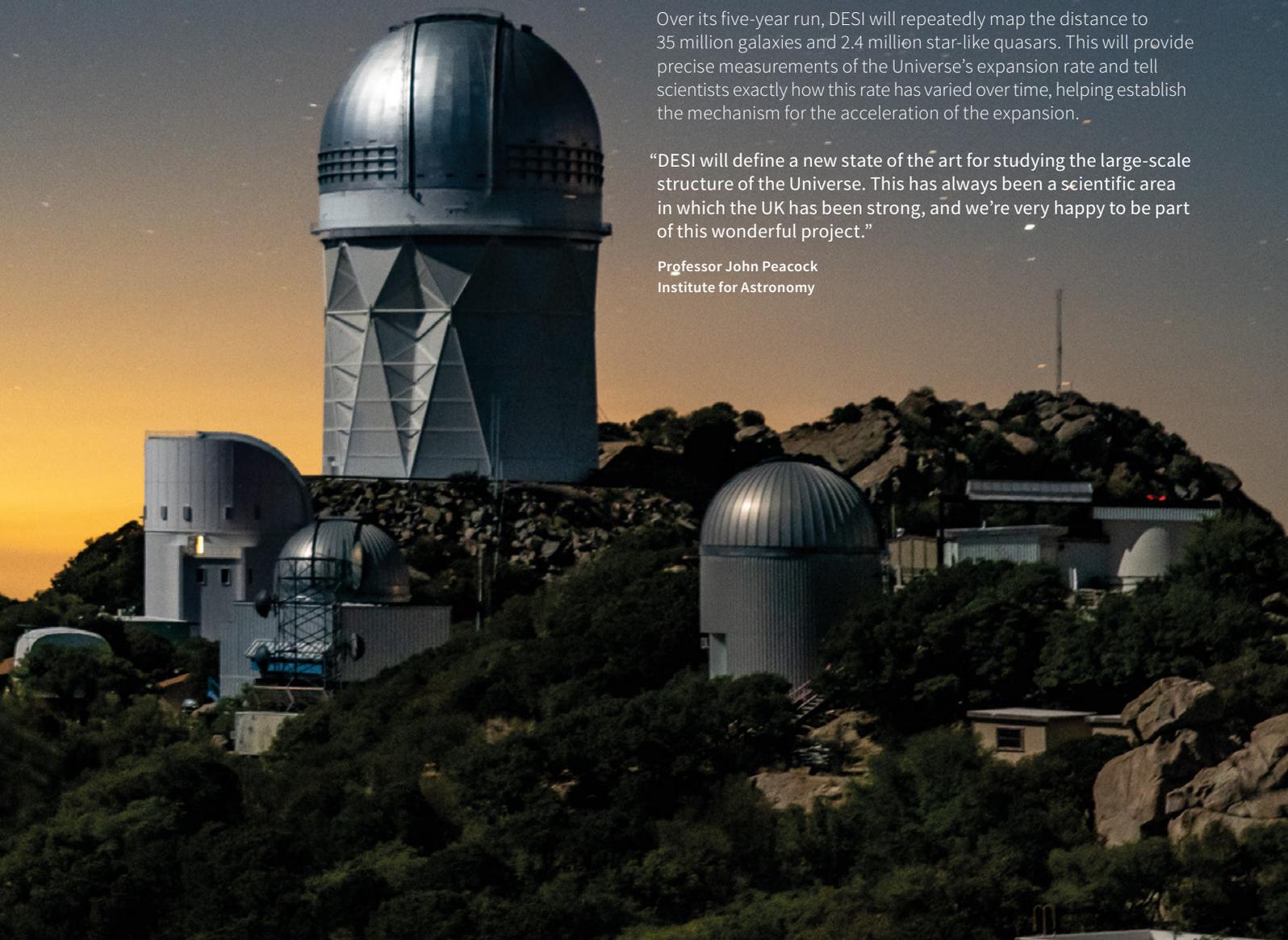
The project has been designed to shed light on dark energy – the mysterious force thought to be pushing galaxies apart and causing the expansion of the Universe to accelerate. DESI will point automatically at preselected galaxies, gather their light and split it into various bands of colour, precisely mapping those galaxies' distance from Earth and gauging how quickly they are moving away from us.

When formal observations begin, DESI will peer deeply into the Universe's infancy and early development – up to 11 billion years ago – to create the most detailed 3D map of the Universe ever produced.

Over its five-year run, DESI will repeatedly map the distance to 35 million galaxies and 2.4 million star-like quasars. This will provide precise measurements of the Universe's expansion rate and tell scientists exactly how this rate has varied over time, helping establish the mechanism for the acceleration of the expansion.

“DESI will define a new state of the art for studying the large-scale structure of the Universe. This has always been a scientific area in which the UK has been strong, and we're very happy to be part of this wonderful project.”

Professor John Peacock
Institute for Astronomy



Our teaching

The School of Physics & Astronomy offers taught master of science (MSc) degrees in particle and nuclear physics, mathematical physics and theoretical physics.

At the time of printing, our planned taught degrees for 2021 are:

- **Mathematical Physics** (MSc)
- **Particle & Nuclear Physics** (MSc)
- **Theoretical Physics** (MSc)

Our degree in particle and nuclear physics will give you the opportunity to develop advanced experimental techniques, computational techniques and theoretical understanding of the discipline. You will develop research and problem-solving skills, preparing you for employment in research, science-based industry, medical physics and education.

Our mathematical and theoretical physics degrees jointly mark a new era in physics, one which follows the discovery of a Higgs boson at CERN and our establishment of the Higgs Centre, which provides training in the application of theoretical physics to solve problems at the forefront of academic and industry research.

Please check our online degree finder for the most up-to-date information available on our taught postgraduate opportunities and to make an application: www.ed.ac.uk/postgraduate/degrees

“I’m very pleased to support the two MSc programmes in theoretical and mathematical physics. This initiative will greatly help the University of Edinburgh to play a major role in training the next generation of theoretical physicists.”

Peter Higgs, Emeritus Professor of Theoretical Physics
University of Edinburgh



Facilities and resources

Our School, home to around 100 academics devoted to research and teaching, offers the breadth of expertise and world-class facilities that will inspire you to produce groundbreaking work.

You'll be encouraged to explore the best the world can offer in your field of interest. Our connections with organisations such as CERN can widen your horizons, as can visits to international conferences and events. Thanks to our reputation as a centre for research excellence, we regularly play host to specialist conferences, and you can expect to have access to some of the most respected names in the field.

World-leading facilities

World-leading research requires exceptional facilities to help fulfil your academic ambitions. While we have established strong connections with many prestigious global research centres, a number of internationally recognised facilities are based here at Edinburgh. They include:

The Higgs Centre for Theoretical Physics

The discovery in July 2012 of the Higgs boson at CERN, almost half a century after Peter Higgs' prediction in 1964, is a milestone in the history of theoretical physics. Rarely has a theoretical prediction been confirmed so spectacularly, so long after it was made. The theoretical ideas put forward by Peter Higgs, Francois Englert and Robert Brout, inspiring thousands of physicists and putting in motion the experimental searches for the Higgs boson, were celebrated with the Nobel Prize in Physics awarded in October 2013.

The discovery marks the start of a new era in theoretical physics. While the Standard Model of elementary particle physics is now complete, many fundamental questions remain unanswered. We still don't understand the intricate structure of charges and flavours in the Standard Model, or what determines the values of its parameters. We are still struggling to build a compelling theory of quantum gravity, and understand the role played by the vacuum in the formation of the early universe. We have no idea what dark matter and dark energy are, and we have difficulty understanding structure formation and complexity.

The Higgs Centre for Theoretical Physics has been established by the University to seek answers to some of these questions, by creating opportunities to formulate new theoretical concepts to take us beyond the limitations of current paradigms.

The Higgs Centre of Innovation

The new Higgs Centre of Innovation, located on the Royal Observatory Edinburgh site, opened in July 2018. This new centre brings together the innovation and technology developed in astronomy, particle and nuclear physics with a start-up company incubator facility to exploit technologies such as in imaging, medical applications and satellite development. The Centre aims to form a link between research and industry to the benefit of all, and especially to PhD students working in these areas.

UK Centre for Astrobiology

We are affiliated with the NASA Astrobiology Institute and have a mission to advance our understanding of molecules and life in extreme environments on Earth and beyond. We do this with a combination of theoretical, laboratory, field and mission approaches. We apply this knowledge to improving the quality of life on Earth and developing space exploration as two mutually enhancing objectives. Our work is underpinned by broad and compelling questions: How did life originate? Is there life elsewhere in the Universe? What are the limits of the Earth's biosphere? Can we establish a permanent human presence beyond the Earth? We study the responses of molecules to extreme environments, including the space environment, simulate extra-terrestrial environments, and maintain a 1.5km-deep subsurface biology laboratory at the Boulby Mine in Yorkshire, England.

The Centre for Science at Extreme Conditions (CSEC)

At this highly specialised laboratory, the physical properties of materials can be measured at extremely high pressures. CSEC, which has risen to international prominence over the past 20 years, provides the infrastructure needed to explore the effects of pressure on structure at interatomic distances.



Research opportunities and support

We offer a diverse range of doctor of philosophy (PhD) degrees across all of our areas of research. You will be supported by courses designed for PhD students, in addition to those offered by the Scottish Universities Physics Alliance (SUPA) Graduate School and the Institute for Academic Development (see pages 4 and 5).

The Postgraduates in Physics & Astronomy (PPA) Society provides an interface between students and the Graduate School where issues concerning students can be discussed and resolved.

We have an active student group that organises student-led seminars and workshops in specific and general areas. They also organise social activities, typically a welcome BBQ, a residential trip to the Firbush Point Field Centre on the shores of Loch Tay in the Scottish Highlands, Christmas Ceilidh with Scottish dancing, and day bicycle rides to the East Lothian beaches.

For further information on our PhD research see: www.ph.ed.ac.uk/studying/postgraduate-research

You can 'meet' current students and find out what they think about their programmes at: edin.ac/phd-student-interviews

Research opportunities

At the time of printing, our planned postgraduate research opportunities for 2021 are:

- Astrophysics (PhD)
- Condensed Matter & Complex Systems (PhD)
- Nuclear Physics (PhD)
- Particle Physics (PhD)

Please check our online degree finder for the most up-to-date information available on our postgraduate research opportunities and to make an application.

Research degree index: www.ed.ac.uk/studying/postgraduate/degrees/research

PhD research projects:
www.ed.ac.uk/studying/phd-research-projects

Advice on finding a research supervisor:
www.ed.ac.uk/studying/postgraduate/research

Career opportunities

Recent graduates have gone on to postdoctoral research posts at universities internationally or are now working for employers such as BAE, EY, HMRC and Moody's Analytics.

See also...

You may be interested in postgraduate opportunities elsewhere within the University, in particular degrees offered by the schools of Biological Sciences, Chemistry, Informatics or Mathematics, or the Continuing Professional Development offered by the Moray House School of Education: www.ed.ac.uk/studying/prospectus-request





Case study

Edinburgh's research with impact

Formulation physics

From the moment we awake each morning, we interact with complex fluids throughout the day – whenever we wash, eat, read on liquid crystal displays (LCDs) or touch a variety of coatings from topical creams to decorative paints. Other complex fluids may be less obvious to us, such as the dispersions used in pesticides and the pastes used to make catalytic exhausts, yet they are still vital to the quality of our lives. Given such ubiquity, what are complex fluids?

Complex fluids

Unlike simple liquids, made of molecules with equal freedom to move, complex fluids often contain nano- to micro-sized components in the form of dispersed polymers, particles, droplets or bubbles. Such materials can be highly concentrated dispersions such as toothpastes, polymeric and particulate composites such as the dough that forms bread, or emulsions such as decorative paints. To the general consumer these kinds of products are considered 'goosey' and have properties somewhere in between the classic models of liquids, which flow easily, and solids, which do not flow at all.

The Edinburgh Complex Fluids Partnership (ECFP) was set up in 2012 as a knowledge exchange unit to develop collaborations between industry and the Soft Matter and Biological Physics Group within the School of Physics & Astronomy.

Collaboration

During the first five years ECFP collaborated with more than 30 companies of all scales from start-ups to multinationals, working across numerous sectors including personal care, decorative paints, food and drink, agrochemicals and ceramics. The breadth of work illustrates the importance of developing generic physical principles through research, the results of which are relevant to a number of different systems with similar microstructure.

Through working with industry, ECFP has been able to help companies improve their formulations and processes and in doing so reduce wastage. Furthermore, exciting new research themes have arisen, inspired by fundamental challenges faced by industry.

www.edinburghcomplexfluids.com

Working with industry, ECFP has been able to help companies improve their formulations and processes.

See more online: www.ed.ac.uk/research/impact

Funding

A large number of scholarships, loans and other funding schemes are available for your postgraduate studies. It is only possible to show a small selection in print. To see the full range, please visit: www.ed.ac.uk/student-funding/postgraduate

Awards are offered by the School of Physics & Astronomy, the College of Science & Engineering, the University of Edinburgh, the Scottish, UK and international governments and many funding bodies.

Here we list a selection of potential sources of financial support for postgraduate students applying to the School of Physics & Astronomy. This list was correct at the time of printing but please check the full and up-to-date range online (see above).

University of Edinburgh Alumni Scholarships

We offer a 10 per cent scholarship towards postgraduate fees to all alumni who graduated from the University as an undergraduate, and to all students who spent at least one semester studying at the University on a visiting programme: www.ed.ac.uk/student-funding/alumni-scholarships

Key

- Taught masters degrees
- Masters by Research degrees
- Research degrees

Scholarships at the University of Edinburgh

• Centre for Doctoral Training in Mathematical Modelling, Analysis and Computation (MAC-MIGS) ●

This PhD is run jointly by the University of Edinburgh and Heriot Watt University. It typically offers 15 PhD studentships per year and is based in the new Bayes Centre. Entry to this CDT is via the School of Mathematics, with typically two studentships per year in the School of Physics & Astronomy: www.mac-migs.ac.uk

• Centre for Doctoral Training in Soft Matter and Industrial Innovation (SOFI2) ●

This is a tri-institutional collaboration between the universities of Durham, Edinburgh and Leeds. Recently renewed for 2019-24 entry, it typically offers 12 studentships a year, with two placed in the School of Physics & Astronomy: www.dur.ac.uk/soft.matter/soficdt

• Higgs Scholarship ●

The School offers six MSc scholarships, each worth £5,000. These will be awarded on the basis of academic merit to students of all nationalities who are accepted for admission to MSc Theoretical Physics, Mathematical Physics or Particle & Nuclear Physics: www.ph.ed.ac.uk/higgs-centre-scholarships

• Principal's Career Development PhD Scholarships ●

These prestigious scholarships give access to any applicant from around the world to undertake discipline training and additional skills development. Students are encouraged to engage with entrepreneurial training, teaching, outreach and industrial engagement. Each award covers the tuition fee and full stipend: www.ed.ac.uk/student-funding/development

• School-funded places ●

We have School-funded PhD places and PhD places covering a stipend and the Home/EU tuition fee available across all our subjects: edin.ac/physics-funding-studentships

Research council awards

Research councils offer awards to eligible masters and PhD students in most of the Schools within the University of Edinburgh. All studentship applications from the research councils must be made through the University, through your School or College office. Please check the eligibility criteria for each opportunity online: www.ed.ac.uk/student-funding/research-councils

Loans available for study at the University of Edinburgh

The University of Edinburgh is a participating institution in the following loans programmes, meaning we certify your student status and can help with the application process.

• The Canada Student Loans Program ●●●

The University is eligible to certify Canadian student loan applications: www.ed.ac.uk/student-funding/canadian-loans

• Postgraduate Doctoral Loans England ●

Student Finance England offers postgraduate loans for doctoral study, payable to eligible students and divided equally across each year of the doctoral programme: www.gov.uk/doctoral-loan

• Postgraduate Doctoral Loans Wales ●

Student Finance Wales offers loans for postgraduate doctoral study, payable to eligible students, divided equally across each year of the doctoral programme: www.studentfinancewales.co.uk/postgraduate-students/postgraduate-doctoral-loan

• Postgraduate Loans (PGL) England ●●

Student Finance England offers postgraduate loans for taught and research masters programmes, payable to eligible students: www.gov.uk/postgraduate-loan

• Postgraduate Loans (PGL) Northern Ireland ●●

Student Finance Northern Ireland offers eligible students a tuition fee loan for taught and research programmes, at certificate, diploma, and masters level, which will be paid directly to the University: www.studentfinancenir.co.uk

- **Postgraduate Loans (SAAS)** ●●

The Student Awards Agency Scotland offers eligible students tuition fee loans for taught and research programmes at diploma and masters level, which will be paid directly to the University. Eligible students can also apply for a non-income assessed living cost loan: www.saas.gov.uk

- **Postgraduate Master's Finance Wales** ●●

Student Finance Wales offers eligible students postgraduate finance for taught and research masters programmes: www.studentfinancewales.co.uk

- **US Student Loans** ●●●

The University is eligible to certify loan applications for US loan students. Full details on eligibility and how to apply can be found online: www.ed.ac.uk/student-funding/us-loans

Other sources of funding

The following are examples of the many scholarships and support schemes available to students from particular countries who meet certain eligibility criteria.

- **Chevening Scholarships** ●●

A number of partial and full funding scholarships are available to one-year masters students: www.chevening.org

- **Commonwealth Scholarships** ●●●

Scholarships available to students who are resident in any Commonwealth country, other than the UK: www.dfid.gov.uk/cscuk

- **Marshall Scholarships (USA)** ●●●

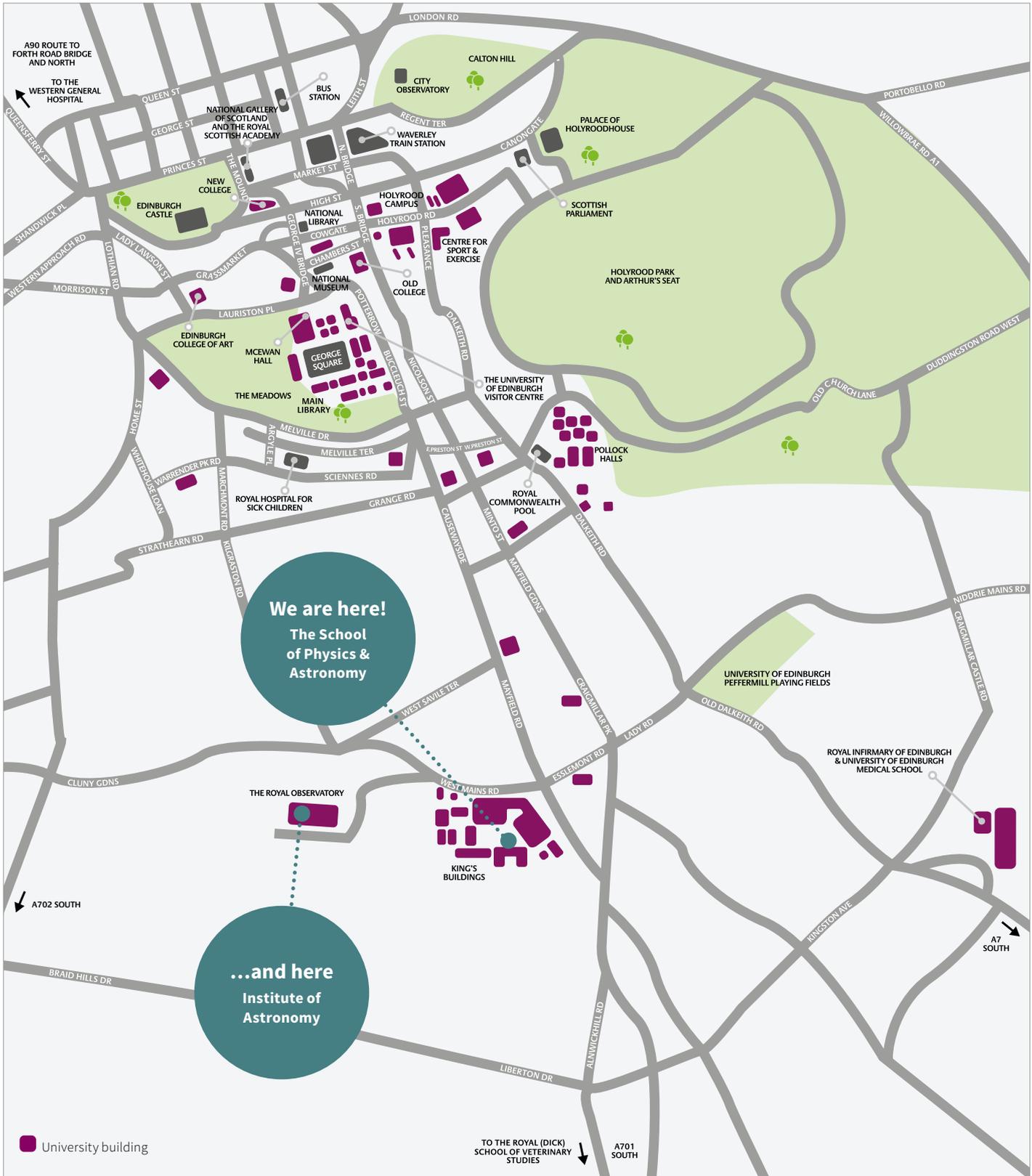
Scholarships available to outstanding US students wishing to study at any UK university for at least two years: www.marshallscholarship.org



Where we are

The School of Physics & Astronomy's teaching and administration centre is in the James Clerk Maxwell Building, on the University's King's Buildings campus, about two miles south of the city centre. The Institute for Astronomy is based at the Royal Observatory, also in the south of the city.

Detailed maps can be found at: www.ed.ac.uk/maps



University building

TO THE ROYAL (DICK) SCHOOL OF VETERINARY STUDIES

A701 SOUTH

What's next?

Contact us

For more information about applying for an MSc, contact:

MSc Administrator

Tel +44 (0)131 651 3448
Email msc.tpmp@ph.ed.ac.uk
or msc.pnp@ph.ed.ac.uk

For more information about the application and admissions process for taught MSc degrees, contact:

College of Science & Engineering Recruitment and Admissions Team

Tel: +44 (0)131 650 5737
www.ed.ac.uk/science-engineering/contact/ug-pgt-enquiries

For more information about applying for our doctorates, contact:

Graduate School Administrator

Tel +44 (0)131 651 7837
Email gradschool@ph.ed.ac.uk

For any other enquiries, contact:

School of Physics & Astronomy

The University of Edinburgh
James Clerk Maxwell Building
King's Buildings
Peter Guthrie Tait Road
Edinburgh EH9 3FD, UK
Tel +44 (0)131 651 7067
Email enquiries@ph.ed.ac.uk

Institute for Astronomy

The University of Edinburgh
Royal Observatory
Blackford Hill
Edinburgh EH9 3HJ, UK
Tel +44 (0)131 668 8403

Visit us

We offer many opportunities for you to join us in Edinburgh and find out more about the University – including Online Information Sessions to access from the comfort of your own home and Open Days you can attend in person or online. Find out what event we're hosting next: www.ed.ac.uk/visit/open-days

Virtual Visit

Can't visit Edinburgh in person? Our Virtual Visit allows you to virtually explore the University and the city. View a range of videos, 360° photos and image galleries to find out what it is like to live and study here: www.virtual-visit.ed.ac.uk

Chat online

Wherever you are in the world, we offer you opportunities to get in touch and speak directly to us about studying here.

We offer all postgraduate students online information sessions. To find out more and see when the next session will be: www.ed.ac.uk/postgraduate/online-events

Our visits to you

If you are unable to visit the University, we attend events worldwide whenever possible during the year. Find out about your next opportunity to speak to us in person: www.ed.ac.uk/postgraduate/meet-us



We know these are uncertain times but at the University of Edinburgh your safety is our priority. We hope to welcome you on campus and are committed to ensuring you're taught as safely as possible during the pandemic. To find out about the steps we're taking, in line with Scottish Government guidance, visit: www.ed.ac.uk/news/covid-19

Published by:

Communications and Marketing, The University of Edinburgh

Designed by:

Parkhouse

Photography by:

Paul Dodds

Shutterstock

Nick Callaghan

Marilyn Chung, Berkeley Lab

Chris Robson

Getty Images

This publication is available online at www.ed.ac.uk/postgraduate and can be made available in alternative formats on request. Please contact communications.office@ed.ac.uk or call +44 (0)131 650 2252.

We have made every effort to ensure the accuracy of the information in this prospectus before going to print. However please check online for the most up-to-date information: www.ed.ac.uk

The UK formally left the European Union (EU) on 31st January 2020. UK and Scottish Governments have confirmed that most non-UK EU students commencing study in 2021/22 will no longer be treated as 'home' students in relation to fee status or access to funding. Final fee regulations are not yet available but are expected to clarify fee status for those with settled status and for Irish citizens (under the Common Travel Agreement). For the latest information for students and applicants from the EU, please visit our website: www.ed.ac.uk/news/eu

The University's standard terms and conditions will form an essential part of any contract between the University of Edinburgh and any student offered a place here. Our full terms and conditions are available online: www.ed.ac.uk/student-recruitment/terms-conditions

© The University of Edinburgh 2020.

No part of this publication may be reproduced without written permission of the University. The University of Edinburgh is a charitable body registered in Scotland, with registration number SC005336.



Education 
SCOTLAND
Innovative. Individual. Inspirational.

Open to
the world

Physics & Astronomy

“The attraction was the diversity of the courses available. I could tailor my programme and select courses that were mathematical, theoretical or experimental. The staff were extremely approachable and caring.”

Vasily Demchenko
Physics graduate